REMARKS

This application has been reviewed in light of the final Office Action dated December 16, 2003. In view of the foregoing amendments and the following remarks, favorable reconsideration and withdrawal of the rejections set forth in the Office Action are respectfully requested.

Claims 8-13 are pending. Claims 1-7 have been cancelled without prejudice or disclaimer of subject matter. Claim 8 has been amended. Support for the claim changes can be found in the original disclosure, and therefore no new matter has been added. Claim 8 is in independent form.

Claims 8, 9, 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,458,254 (*Miyagawa et al.* '254) in view of U.S. Patent No. 5,331,344 (*Miyagawa et al.* '344).

Claims 10 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Miyagawa et al.* '254 in view of *Miyagawa et al.* '344 and further in view of U.S. Patent No. 4,429,027 (*Chambers et al.*) and U.S. Patent No. 4,536,468 (*Yasui et al.*), respectively.

Applicant respectfully traverses these rejections.

Independent Claim 8 recites, *inter alia*, a step of exposing both the first active energy setting material and the ink-repellent second active energy setting material in a process by applying light to both the first active energy setting material and the ink-repellent second active energy setting material simultaneously through a mask corresponding to an ejection port for ejecting ink.

By virtue of the features recited in Claim 8, e.g., the exposing step, the positioning accuracy of both of the active energy setting materials around the ejection port can be enhanced.

Applicant submits that nothing in either *Miyagawa et al.* '254 nor *Miyagawa et al.* '344, whether taken singly or in combination (even assuming, for the sake of argument, that such combination were permissible), would teach or suggest at least a step of exposing both a first active energy setting material and an ink-repellent second active energy setting material in a process by applying light to both the first active energy setting material and the ink-repellent second active energy setting material simultaneously through a mask corresponding to an ejection port for ejecting ink.

Miyagawa et al. '254 relates to a method for manufacturing a liquid jet recording head. According to the method, an ink flow passage pattern 4 is formed on a substrate 1 by a dissolvable resin, a resin layer 5 is formed on pattern 4, a silicon oxide film 6 is formed on resin layer 5, and a resist is formed on film 6 (see, e.g., col. 9, line 50 - col. 12, line 4 and col. 15, lines 41*ff*). Further, a pattern exposure is applied to the film 6, which is then developed and rinsed. After this, the film 6 is etched by a plasma to form an ink discharging port pattern (see, e.g., col. 11, lines 51-56).

Miyagawa et al. '254 is not seen to teach or suggest exposing resin layer 5 and silicon oxide film 6 by applying light to both simultaneously through a mask corresponding to an ejection port for ejecting ink.

Miyagawa et al. '344 relates to a method for producing a liquid discharging recording head, a recording head produced thereby, and a recording apparatus utilizing the recording head. According to *Miyagawa et al.* '344, a latent image 6 of the pattern of an ink

channel is formed by exposing a first photosensitive material layer 3 to light irradiation in direction A through mask 4 corresponding to an ink channel 11 (col. 12, lines 24-29; Fig. 3). Then a latent image 8 in the pattern of ink discharge openings and a latent image 9 in the pattern of an ink supply opening are formed by exposing a second photosensitive material layer 5 to light irradiation in direction B through mask 7 corresponding to ink discharge openings 12 and ink supply opening 13 (col. 13, lines 7-13; Fig. 5). Then the latent images 6, 8 and 9 are developed, whereby the ink channel 11, ink discharge openings 12 and ink supply opening 13 are formed (col 13, lines 38-44).

It is noted that, according to *Miyagawa et al.* '344, the second exposure, i.e., the exposure of the second photosensitive material layer 5, "should be conducted in such a manner that the light for the exposure of the second photosensitive material layer 5 does not affect the first photosensitive material layer 3, or does not practically affect the preparation of the liquid-discharging recording head . . . , even if the light affects the first layer 3" (col. 13, lines 15-21). Thus, depending on the nature of the materials constituting layers 3 and 5 (i.e., whether they are positive or negative), "there is required a measure for avoiding the influence of the light [that is irradiated on the second layer 5] on the first layer 3" (col. 13, lines 30-33).

In view of the method of *Miyagawa et al.* '344, as described above, Applicant understands that, even if *Miyagawa et al.* '344's first and second photosensitive material layers were deemed to correspond to the first and second active energy setting materials recited in Claim 8, nothing in *Miyagawa et al.* '344 would teach or suggest exposing both of those layers by applying light to both of them simultaneously through a mask.

Accordingly, Applicant submits that neither *Miyagawa et al.* '254 nor *Miyagawa et al.* '344 contain all of the elements of independent Claim 8.

Further, if it were assumed for the sake of argument that *Miyagawa et al.* '344 could be combined with *Miyagawa et al.* '254, such combination could yield at best only a method comprising a first step in which *Miyagawa et al.* '254's resin layer 5 would be exposed to light and a second, different step in which *Miyagawa et al.* '254's silicon oxide film 6 would be exposed to different light. (As noted above, in *Miyagawa et al.* '344's second exposure, the first layer is not to be exposed.)

However, Applicant understands that even such combination may not be permissible. In this regard, the Office Action (page 6) argues that "the exposure processes of both Miyagawa et al. '344 and Miyagawa et al. '254 are each to form art recognized equivalent ink-jet heads." However, Applicant understands that the ink jet head produced by *Miyagawa et al.* '254 is not the same as that produced by *Miyagawa et al.* '344. The plasma etching of *Miyagawa et al.* '254 provides certain advantageous results that may not be available without using plasma etching (see, e.g., col. 4, lines 34*ff*). Thus, as discussed above, *Miyagawa et al.* '254's discharging ports 7 are completed only after being exposed to light, developed and plasma etched. Accordingly, *Miyagawa et al.* '254's head may have certain advantages not had by *Miyagawa et al.* '344's head. Therefore, *Miyagawa et al.* '254's head is not seen to be equivalent to *Miyagawa et al.* '344's head to the extent that the producing methods of the two heads are necessarily combinable, or that steps in those methods are necessarily interchangeable with one another.

In sum, Applicant submits that any combination of *Miyagawa et al.* '344 with *Miyagawa et al.* '254 would not yield Applicant's invention as set forth in independent Claim 8.

A review of the other art of record, including U.S. Patent No. 4,429,027 (*Chambers et al.*) and U.S. Patent No. 4,536,468 (*Yasui et al.*), has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against independent Claim 8. The claim is therefore believed patentable over the art of record.

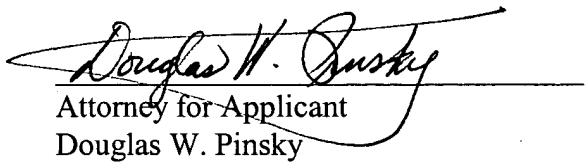
The other claims in this application are each dependent from independent Claim 8 and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

Applicant submits that this Amendment After Final Rejection clearly places the subject application in condition for allowance. This Amendment was not presented earlier, because Applicant believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of the instant Amendment, as an earnest attempt to advance prosecution and reduce the number of issues, is requested under 37 C.F.R. § 1.116.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicant
Douglas W. Pinsky
Registration No. 46,994

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
DWP/tmc